

EXERCISES – APPLICATION PROBLEMS:  
ALGEBRAIC EQUATIONS (ALL 4 OPERATIONS)

1. Chelsea was 76 years old  $13\frac{1}{2}$  years ago. How old is she now?

(Define the Variable) Let  $a =$  \_\_\_\_\_

Algebraic Equation (-) \_\_\_\_\_

Solve Algebraically



Answer in Sentence: Chelsea is \_\_\_\_\_ years old now.

2. Jack went shopping for fishing gear at Gander Outdoors with a gift card that had a balance of \$65. He purchased 4 fishing lures, a net, and a tackle box for \$52.38. How much money did he have left?

(Define the Variable) Let  $m =$  \_\_\_\_\_

Algebraic Equation (+) \_\_\_\_\_

Solve Algebraically



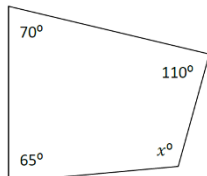
Answer in Sentence: Jack has \_\_\_\_\_ left on his gift card.

3. Set up an algebraic equation for finding the missing angle measure of the quadrilateral. Solve for the missing angle measure. (HINT: The 4 interior angles of a quadrilateral **TOTAL 360 degrees.**)

(Define the Variable) Let  $x =$  \_\_\_\_\_

Algebraic Equation (+) \_\_\_\_\_

Solve Algebraically



Answer in Sentence: The missing angle measure is \_\_\_\_\_ degrees.

4. At a restaurant, **Perry and his five** friends divided the bill evenly. If the total bill was \$67.80, how much did each person pay?

Let  $m =$  \_\_\_\_\_

Algebraic Equation (x) \_\_\_\_\_

Solve Algebraically



Answer in Sentence: Each person paid \$\_\_\_\_\_.

5. It takes 6 lemons to make a bottle of lemonade. If the lemonade company made 70 bottles of lemonade, how many lemons did they use?

(Define the Variable) Let  $L =$  \_\_\_\_\_

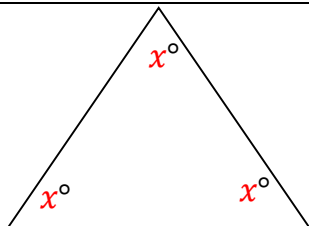
Algebraic Equation ( / ) \_\_\_\_\_

Solve Algebraically



Answer in Sentence: The Lemonade Company uses \_\_\_\_\_ lemons to make 70 bottles of lemonade.

6. **(Geometry Connection)** Determine the measure of the missing angle measures,  $x^\circ$ . (**HINT:** This is an **EQUILATERAL TRIANGLE**)



**Pulling out the Important Information from the problem**

Let  $x =$  \_\_\_\_\_

Algebraic Equation (x) \_\_\_\_\_

Solve Algebraically

Answer in a Sentence: Each angle measures \_\_\_\_\_ $^\circ$ .